INTER CA – NOVEMBER 2018

Sub: FINANCIAL MANAGEMENT
Topics – Estimation of Working Capital, Receivables Management, Accounting Ratio, Leverages, Capital Structure.
Test Code – N16
Branch: Multiple **Date:**

(50 Marks)

Answer 1

Statement showing the Working Capital Requirement of the Company (6 marks)

		(Rs.)
A.	**Current Assets:**	
	Stock of raw materials [(Rs.64,80,000 / 12 months) × 2 months]	10,80,000
	Work-in-progress [(Rs.1,51,20,000 × 4) / 52 weeks × 50%]	5,81,538
	Finished goods (Rs.1,51,20,000 / 12 months)	12,60,000
	Receivables (Refer to Working note 2)	20,16,000
	Cash balances	1,00,000
		50,37,538
B.	**Current Liabilities:**	
	Creditors of raw materials (Rs.64,80,000 / 12 months)	5,40,000
	Creditors for wages & overheads $\left(\frac{\text{Rs.}86{,}40{,}000}{52 \text{ weeks}} \times 1.5 \text{ weeks}\right)$	2,49,231
		7,89,231
	Net Working Capital (A - B)	42,48,307

Working Notes: (2 marks)

1.	Annual raw materials requirements (Rs.) (1,44,000 units × Rs.45)	64,80,000
	Annual direct labour cost (Rs.) (1,44,000 units × Rs.20)	28,80,000
	Annual overhead costs (Rs.) (1,44,000 units × Rs.40)	57,60,000
	Total Cost (Rs.)	1,51,20,000
2.	Total Cost of Sales: (1,44,000 units × Rs.105)	1,51,20,000
	Total cost of credit sales (80% of Rs.1,51,20,000)	1,20,96,000
	Two months' sales (Rs.1,20,96,000 / 12 × 2 months)	20,16,000

Answer 2

Working Notes: (3 marks)

1. Manufacturing Expenses		**Rs.**
Sales		24,00,000
Less: Gross Profit Margin at 20%		4,80,000
Total Manufacturing Cost		19,20,000
Less: Materials Consumed	6,00,000	
Wages	4,80,000	10,80,000
Manufacturing Expenses		8,40,000
Less: Cash Manufacturing Expenses (50,000 × 12)		6,00,000
Depreciation		2,40,000
2. Total Cash Costs		**Rs.**
Manufacturing Costs		19,20,000
Less: Depreciation		2,40,000
Cash Manufacturing Costs		16,80,000
Add: Administrative Expenses		1,50,000
Add: Sales Promotion Expenses		75,000
Total Cash Costs		19,05,000

Statement showing the Requirements of Working Capital of the Company (5 marks)

		Rs.
Current Assets:		
Debtors 1/6 the of Total Cash Costs (1/6 × Rs. 19,05,000) (Refer to Working Note 2)		3,17,500
Sales Promotion Expenses (prepaid)		18,750
Stock of Raw Materials (1 month)		50,000
Finished Goods (1/12 of Cash Manufacturing Costs) (Rs. 16,80,000 x 1/12) (Refer to Working Note 2)		1,40,000
Cash-in-Hand		80,000
		6,06,250
Less: Current Liabilities		
Creditors for Goods (2 months)	1,00,000	
Wages (1 month)	40,000	
Manufacturing Expenses (1 month)	50,000	
Administrative Expenses (1 month)	12,500	2,02,500
Net Working Capital		4,03,750
Add: Safety Margin @ 10%		40,375
Working Capital Required		4,44,125

Answer 3

Evaluation of Credit policies (8 marks)

Particulars	**Present policy (Rs.)**	**Proposed policy (Rs.)**
Credit Sales	15,00,000	15,80,000 (112% of 15,00,000)
Variable Cost (72%)	(10,80,000)	(12,09,600)
Contribution	4,20,000	4,70,400
Bad debt	(22,500) (15,00,000 x 15%)	(33,600) (16,80,000 x 2%)
Profit Before Tax (PBT)	3,97,500	4,36,800
Tax @ 30%	(1,19,250)	(1,31,040)
Profit After Tax (PAT)	2,78,250	3,05,760
Opportunity Cost (Refer working note)	(20,250)	(30,240)
Net Profit	2,58,000	2,75,520

In proposed scheme the net profit is more by Rs. 17,520 i.e. (Rs. 2,75,520 - Rs. 2,58,000), hence, company should change the credit policy. **(1 mark)**

Working Note: (1 mark)

Opportunity Cost on Credit safes:

Present policy = Rs.10,80,000 x $\frac{15}{100}$ x $\frac{45 \text{ days}}{360 \text{ days}}$ =Rs.20,250

Proposed policy = Rs.12,09,600 x $\frac{15}{100}$ x $\frac{60 \text{ days}}{360 \text{ days}}$ =Rs.30,240

Assumption:

(i) Cash discount is not availed by the debtors.

(ii) Debtors are utilising full credit period for payment.

(iii) No. of days in a year is 360 days.

Answer 4

Working notes (2 marks)

Preparation of Financial Statements

Particulars	%	(Rs.)
Share capital	50%	1,00,000
Other shareholders funds	15%	30,000
5% Debentures	10%	20,000
Trade creditors	25%	50,000
Total	100%	2,00,000

Land and Buildings = Rs. 80,000
Total Liabilities = Total Assets
Rs. 2,00,000 = Total Assets
Fixed Assets = 60% of Total Gross Fixed Assets and Current Assets
= Rs. 2,00,000 Rs. 60/100
= Rs. 1,20,000

Calculation of Additions to Plant & Machinery

	Rs.
Total Fixed Assets	1,20,000
Less: Land and Building	80,000
Plant and Machinery (after providing depreciation)	40,000
Depreciation on Machinery up to 31-3-2013	15,000
Add: Further Depreciation	5,000
Total	**20,000**

Current Assets = Total Assets – Fixed Assets
= Rs. 2,00,000 – Rs. 1,20,000 = Rs. 80,000

Calculation of Stock

Quick Ratio $= \dfrac{\text{Current Assets - Stock}}{\text{Current Liabilities}} = 1$

$= \dfrac{Rs.80,000 - Stock}{Rs.50,000} = 1$

Rs. 50,000 = Rs. 80,000 – Stock
Stock = Rs. 80,000 – Rs. 50,000
= Rs. 30,000
Debtors = 4/5th of Quick Assets
= (Rs. 80,000 – 30,000) Rs. 4/5
= Rs. 40,000

Debtors Turnover Ratio

$= \dfrac{\text{40,000 x 12}}{\text{Credit Sales}} = \text{ 2 months}$

2 Credit Sales = 4,80,000
Credit Sales = 4,80,000/2
= 2,40,000
Gross Profit (15% of Sales)
Rs. 2,40,000 Rs. 15/100 = Rs. 36,000

Return on Networth (profit after tax)

Networth = Rs. 1,00,000 + Rs. 30,000
= Rs. 1,30,000
Net Profit = Rs. 1,30,000 Rs. 10/100 = Rs. 13,000
Debenture Interest = Rs. 20,000 Rs. 5/100 = Rs. 1,000

Projected Profit and Loss Account for the year ended 31-3-2014 (3 marks)

To Cost of Goods Sold	2,04,000	By Sales	2,40,000
To Gross Profit	36,000		
	2,40,000		**2,40,000**
To Debenture Interest	1,000	By Gross Profit	36,000
To Administration and Other Expenses	22,000		
To Net Profit	13,000		
	36,000		**36,000**

Ganesha Limited

Projected Balance Sheet as on 31st March, 2014 (3 marks)

Liabilities	**Rs.**	**Assets**		**Rs.**
Share Capital	1,00,000	Fixed Assets		
Profit and Loss A/c	30,000	Land & Buildings		80,000
(17,000+13,000)		Plant & Machinery	60,000	
5% Debentures	20,000	Less: Depreciation	20,000	40,000
Current Liabilities		Current Assets:		
		Stock	30,000	
Trade Creditors	50,000	Debtors	40,000	
		Bank	10,000	80,000
	2,00,000			**2,00,000**

Answer 5 (2 marks for each situation under each plan)

(a) Computation of Operating and Financial Leverage

Actual Production and Sales: 60% of 10,000 = 6,000 units

Contribution per unit: Rs. 30 – Rs. 20 = Rs. 10

Total Contribution: 6,000 • Rs. 10 = Rs. 60,000

Financial Plan Situation	**XY**		**XM**	
	A	**B**	**A**	**B**
	Rs.	**Rs.**	**Rs.**	**Rs.**
Contribution (C)	60,000	60,000	60,000	60,000
Less: Fixed Cost	20,000	25,000	20,000	25,000
Operating Profit or EBIT	40,000	35,000	40,000	35,000
Less: Interest	4,800	4,800	1,200	1,200
Earnings before tax (EBT)	35,200	30,200	38,800	33,800
Operating Leverage = $\frac{C}{EBIT}$	60,000	60,000	60,000	60,000
	40,000 =1.5	35,000 =1.71	40,000 =1.5	35,000 =1.71
Financial Leverage = $\frac{EBIT}{EBT}$	40,000	35,000	40,000	35,000
	35,200 = 1.14	30,200 = 1.16	38,800 = 1.03	33,800 = 1.04

Answer 6

Working Notes: (2 marks)

(i) Capital Employed

	Rs.
Equity Capital (5,00,000 shares of Rs. 10 each)	50,00,000
Debentures (Rs. 80,000×100/8)	10,00,000
Term Loan (Rs. 2,20,000×100/11)	20,00,000
Reserves and Surplus	20,00,000
Total Capital Employed	1,00,00,000

(ii) Rate of Return

Earnings before Interest and Tax = Rs. 23,00,000

Rate of Return on Capital Employed = $\frac{\text{Rs.}23{,}00{,}000}{\text{Rs.}1{,}00{,}00{,}000}$ x 100 = 23%

(iii) Expected Rate of Return after Modernisation = 23% + 2% = 25%

Alternative 1: Raise Entire Amount as Term Loan (3 marks)

	Rs.
Original Capital Employed	1,00,00,000
Less: Debentures	10,00,000
	90,00,000
Add: Additional Term Loan	30,00,000
Revised Capital Employed	1,20,00,000

		Rs.
EBIT on Revised Capital Employed (@ 25% on Rs. 120 lakhs)		30,00,000
Less: Interest		
Existing Term Loan (@11%)	2,20,000	
New Term Loan (@12%)	3,60,000	5,80,000
		24,20,000
Less: Income Tax (@ 50%)		12,10,000
Earnings after Tax (EAT)		12,10,000

Earnings per Share (EPS) = $\frac{\text{EAT}}{\text{No. of Equity Shares}} = \frac{\text{Rs.}12{,}10{,}000}{5{,}00{,}000\,\text{Shares}} = Rs.2.42$

P/E Ratio = $\frac{\text{Market Price Per Share}}{\text{EPS}} = 8$

8 = $\frac{\text{Market Price}}{Rs.2.42}$

Market Price = Rs. 19.36

Alternative 2: Raising Part by Issue of Equity Shares and Rest by Term Loan (3 marks)

		Rs.
Earnings before interest and tax (@ 25% on Revised Capital Employed i.e. Rs.120 lakhs)		30,00,000
Less : Interest		
Existing Term Loan @ 11%	2,20,000	
New Term Loan @ 12%	1,20,000	3,40,000
		26,60,000
Less : Income Tax @ 50%		13,30,000
Earnings after Tax		13,30,000

$$\text{EPS} = \frac{\text{Rs.}13{,}30{,}000}{5{,}00{,}000\ (\text{existing}) + 1{,}00{,}000(\text{new})} = Rs.2.217$$

P/E Ratio = 10

Market Price = Rs. 22.17

Advise:

(i) From the above computations it is observed that the market price of Equity Shares is maximised under Alternative 2. Hence this alternative should be selected.

(ii) If, under the two alternatives, the P/E ratio remains constant at 10, the market price under Alternative 1 would be Rs. 24.20. Then Alternative 1 would be better than Alternative 2.

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